

Hikoei OHMI* & Hiroshi ITONO**: A new species of the genus
Liagoropsis (Rhodophyta) from southern Japan

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(新称) の一新種について

Liagoropsis was described by Yamada in 1944 based on the specimens from Formosa. He characterized the genus by its slight amount of calcification, the absence or weak development of involucrial filaments, and the equality of the terminal carpogonial branches and vegetative branches.

Two species of this genus, *Liagoropsis maxima* Yamada and *L. schrammi* (Maze et Schramm) Doty et Abbott (1964), have been recorded from wide but isolated ranges of tropical or subtropical waters. Recently, on field trips to Amami Islands, southern Japan, the junior author collected a number of noteworthy algae. Among these collections, some *Liagora*-like specimens were found, and similar observations to those by Yamada (1944), Desikachary (1957), and Doty and Abbott (1964) on *Liagoropsis* were also made with these *Liagora*-like specimens.

In this paper, *Liagoropsis yamadae* Ohmi et Itono is proposed for this *Liagora*-like alga, and the present new species is briefly compared with the previously known, related genera.

Materials used in the present observations were all collected at the western end of Kakeroma Island on 28 June 1970. The plants were growing on the fragments of dead corals at a depth of about 20 m. For the purpose of internal morphological study, some slides were made by the same method as was used by Abbott (1970).

Liagoropsis yamadae sp. nov. Fig. 1, Fig. 2 A-I

Frons ca. 6.5 cm alta, 1-1.5 mm crassa, radice parva disciformi adfixa, calce valde incrustata, caespitosa, articulata, cylindræa, repetite dichotome vel raro trichotome ramosa, apice attenuata; axis centralis ex filamentis crassis, omni filo ca. 21 μ m crasso, compositus; fila corticalia 230-385 μ m longa, e 4-6 dichotomiis vel trichotomiis composita, cum cellulis in par-

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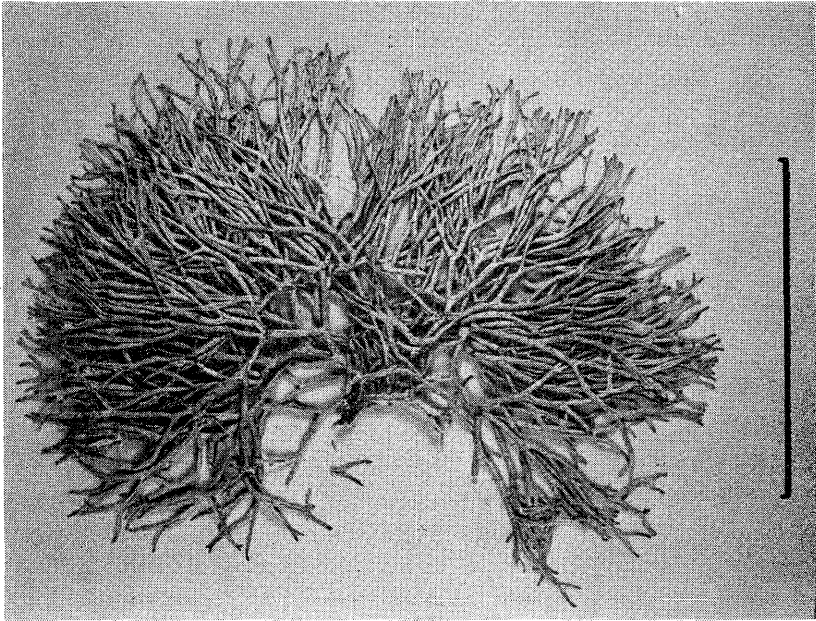


Fig. 1. *Liagoropsis yamadae* Ohmi et Itono. Habit of plant (Scale 5 cm).

tibus inferioribus mediisque longissimis cylindricis, superioribus brevibus, oblongo-cylindricis, ultimis obovoideis $12-21\ \mu\text{m}$ crassis; cellulis ultimis raro pilo brevi ornatis; species monoecia; antheridia ad apicem filorum corticalium sparce evoluta; rami carpogonii ex 3 vel 4 cellulis compositi, erectiusculi, terminantes vel subterminantes supra filamentis assimilantibus strati superficialis; cystocarpis nudis, filamentis involucralibus, destitutis; carpospora longe ovata, $12 \times 15\ \mu\text{m}$ magna.

Holotype: No. HI 19761, deposited in the Herbarium of Faculty of Fisheries, Kagoshima University.

Only five specimens were collected from the type locality. They were found associated with *Liagora farinosa* Lamouroux in more or less calm water area surrounded by coral reef.

The present species is externally most similar to *Liagora robusta* or *Liagora divaricata*. However, the presence of straight terminal carpogonial branches on modified assimilatory filaments (Fig. 2 D, G) suggests to the

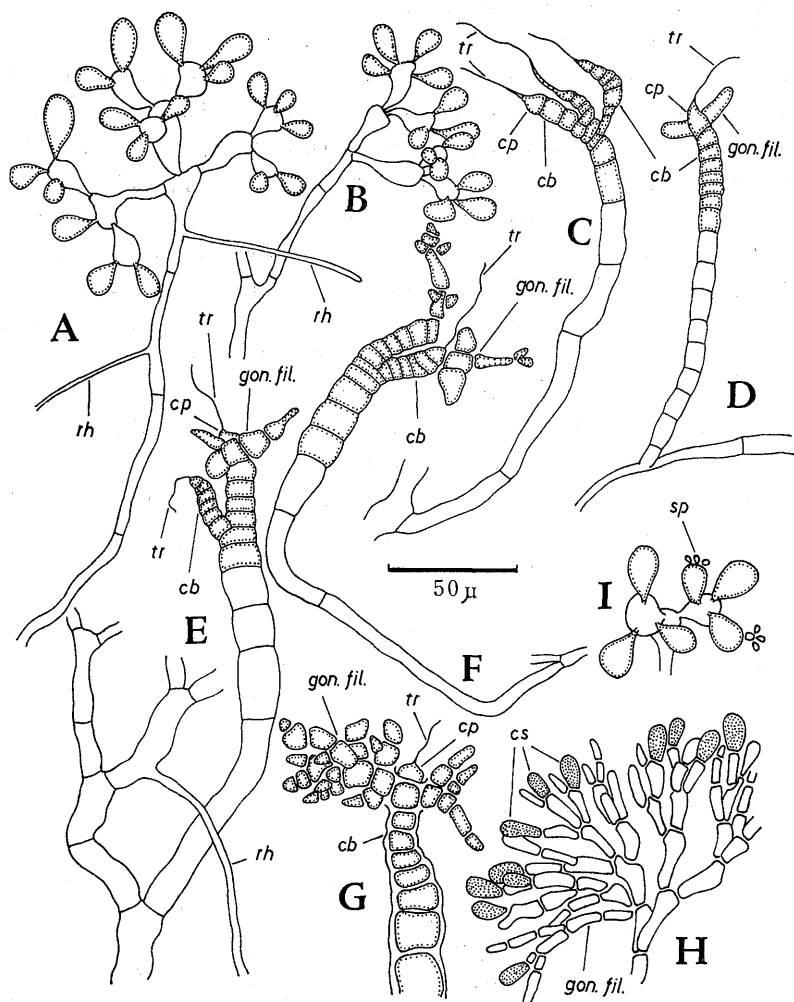


Fig. 2. *Liagoropsis yamadae* Ohmi et Itono. A-B. Branched assimilatory clusters with inflated terminal cells. C. Three carpogonial branches on modified assimilatory filament. D-G. Carpogonial branches provided with gonimoblasts oppositely. H. Part of mature cystocarp showing terminally formed carpospores. I. Spermatangia on inflated terminal cells of assimilatory filament. cb: carpogonial branch; cp: carpogonium; cs: carpospore; gon. fil.: gonimoblast filament; rh: rhizoid; sp: spermatangium; tr: trichogyne.

authors that the present species belongs to either *Liagoropsis* (Yamada, 1944; Desikachary, 1957; Doty and Abbott, 1964) or *Trichogloeopsis* (Abbott and Doty, 1960). In the present species, each fertile modified assimilatory filament bears a single terminal carpogonial branch (Fig. 2 D), and later each of them produces additional one or two carpogonial branches subterminally (Fig. 2 C, E, F). Hence, it is supposed that only the terminal three or four cells function as a carpogonial branch. A strongly stainable nature with aqueous anilin-blue also helps the confirmation of this supposition. In this respect, the present species is slightly different from *Liagoropsis* or *Trichogloeopsis*. *Liagoropsis*, for example, bears a more numerous-celled carpogonial branch (6-10 celled, Yamada 1944; 8-10 celled, Desikachary 1957; 5-8 celled, Doty and Abbott 1964) and *Trichogloeopsis* bears a 4-6 celled carpogonial branch (Abbott and Doty 1960).

However, the present species is very similar to those of previously described species of *Liagoropsis* in the features of female reproductive organs in the post-fertilization stages, and the entire absence of sterile rhizoids produced by the gonimoblast distinguishes the present species from the genus *Trichogloeopsis*. Thus it seems better to put the present species into the genus *Liagoropsis*.

Up to now, two species, *L. maxima* Yamada and *L. schrammi* (Maze et Schramm) Doty et Abbott, have been listed in this genus. However, the thickly calcified thallus of the present species seems to be amply distinct from these two above mentioned species.

The present new species, *Liagoropsis yamadae* Ohmi et Itono, is named in honor of the late Dr. Y. Yamada who established the present genus and made significant contributions to the study of Japanese marine algae.

We wish to express our sincere thanks to Dr. Takesi Tanaka for reading and criticizing the manuscript.

Literature cited

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1970年6月奄美群島加計呂麻島で採集した紅藻の一種を近縁の種と比較検討した結果、本種を新種と認め *Liagoropsis yamadae* Ohmi et Itono と命名した。本種は胎原列が同化糸の先端に形成される事から *Liagoropsis* 属に所属すべきものであるが、胎原列の形態及び藻体に多量の石灰を沈着する事など従来から知られている当該属の他の二種とは明らかに区別出来る特徴を有している。

□大槻虎男：聖書の植物 A5 厚紙表紙，285 頁，挿図 18，パレスチナ植生図 2，巻末図版 13，教文館，1974，2,600 円。本書は植物学者であり，キリスト教徒である著者が，1964 年に親しく聖地を踏み，その自然に接して得られた成果で，まことに興味深い書である。聖書の植物を研究した文献は世界的に膨大な量にのぼり汗牛充棟もたただならずであるが，我国においては単行本としては，別所梅之助氏が内村鑑三氏の聖書の研究誌に連載（1901—1902）されたものをまとめて，聖書植物考（1921）として富山房から出版され，最近覆刻されたものと，松村義敏氏の聖書の植物（1953）がある位である。この時に自から現地を踏査された結果をまとめられた本書は，前二者とは異り実地にあって出来た独得のものであり，また興味多い挿図があるので楽しめる本である。（久内清孝）

□初島住彦：琉球植物誌（追加・訂正）Sumihiko HATUSIMA: Flora of the Ryukyus (Added and Corrected) 沖縄生物教育研究会 1975, 28,600円。これは1971年の同名の書 (pp.1-866) の追加訂正版である。前者にはすでに“追加と訂正 (1971年7月)”が含まれているので，新たに“追加と訂正 (Ⅱ)”として巻末 pp.867-923 が加わり，その中に文献目録（追加 2）pp.917-923 を含んでいる。その他，この版への序文 1 頁分がふえ，また人物，植物の写真の一部およびカラー写真全部は取りかえられた。広大な琉球列島の植物誌が，かくの如く訂正されながら出版されるのは一般利用者にとって慶賀さるべきことである。所が，同じ利用者で既に旧著を購入したものは，全体から見れば僅かの追加訂正分からの知識を得るために高価な代償を払わなければならない。これに似たことは大井次三郎博士の日本植物誌や小生の日本椿集にも起っている。著者としては誤を正し，新知見を追加したいのは当然であるが，読者本位に考えればどう云うことになるのであろうか。出版社の方の条件は，必ずしも著者の自由にならないこともあるであろう。小生はこの矛盾を何とか解決しようと思い，増補訂正分の別刷を別に注文して，購読者に配布したが，これとても不特定の一般の読者には，出版社の側の協力を得られたとしてもなお対応策がないのである。しかしこの面では出版社の協力は得にくい現状である。（津山 尚）